# State of Louisiana Department of Transportation and Development (DOTD) Traffic Operations Approved Product List (TOAPL) Qualification Procedure for TOAPL 14

#### BATTERY BACK-UP SYSTEM FOR TRAFFIC SIGNALS

#### **REQUIRED DOCUMENTATION:**

## Submittals:

Scan and submit all required documents electronically.

#### Evaluation Form:

A separate form shall be required for each model submitted for approval. See Traffic Operations Approved Product Evaluation Form located at the link below:

<a href="http://wwwsp.dotd.la.gov/Inside\_LaDOTD/Divisions/Operations/Traffic\_Services/Pages/Traffic\_Operations\_Approved\_Products\_List.aspx">http://wwwsp.dotd.la.gov/Inside\_LaDOTD/Divisions/Operations/Traffic\_Services/Pages/Traffic\_Operations\_Approved\_Products\_List.aspx</a>

## Certification and/or Test Reports

#### General

Each product shall be submitted with a Certificate of Compliance and test reports that the product meets <u>all</u> specifications in TCS No. 14.

#### **Design and Production**

Provide documentation (from the manufacturer) of the QA program. Each Battery Back-up System shall be manufactured in accordance with a written manufacturer's Quality Assurance program. The QA program shall include, as a minimum, specific design and production QA procedures.

#### **ISO Certification**

Provide ISO certification. The Inverter manufacturer shall be ISO 9001 or ISO 9002 certified.

## **Design Qualification Testing**

Provide testing data. Qualification testing on offered BBS systems shall be preformed by the manufacturer, or an independent lab hired by the manufacturer. Testing procedures shall conform to testing procedures defined in the California Department of Transportation's *Specification for Battery Backup System*, TEES Chapter 4, dated July 7, 2009 or latest version (http://www.dot.ca.gov/hg/traffops/elecsys/reports/BBS July 2009.pdf).

#### **Product Data Sheets**

Include product data sheets to provide all pertinent information relative to the product to be evaluated; including, but not limited to, manufacturer's specifications and a Materials Safety Data Sheet (MSDS).

Operation and maintenance manuals shall be provided. The operation manual shall include a block diagram schematic of all system hardware components. The manual shall include instructions for programming and viewing software features. The manual shall include all uploading/ downloading (communication protocol) requirements via RS232 port or Ethernet port.

Board level schematics shall be provided when requested.

Cabinet wiring diagrams and equipment manuals shall be supplied with each unit.

Detailed directions/instructions for installation, programming and maintenance of the Battery Back-up System unit must be included with each unit.

Battery documentation and replacement information shall be provided.

#### Parts List

Provide a complete parts list including vendors for replacement parts.

#### Warranty

Battery Backup System Warranty

A two (2) year warranty on all parts and components of the entire Battery Back-up System except for the batteries must be provided by the manufacturer. Warranty to begin when the Battery Back-up System is installed.

#### **Battery Warranty**

A three (3) year unconditional full replacement warranty for each battery must be provided. Each battery must provide a minimum of 80% of its original capability during the warranty period; Should the battery fall below 80% of its original capability it will be considered bad and replaced at no cost to **LADOTD.** 

#### **PRODUCT SAMPLE:**

Products may be subject to laboratory testing before final acceptance. If a sample is required, it will be requested from the manufacturer **after** the submitted documentation has been approved.

Return of sample must be arranged by the vendor and the vendor's expense.

LADOTD, at its option, will perform sample testing of Battery Back-up Systems at any time.

## **DISQUALIFICATION:**

Any product may be removed from the TOAPL for non-conformance with specifications or performance requirements. The Department must be notified in writing of any name change or change in product. Significant changes may require reevaluation of the product.

# **REQUALIFICATION:**

Any product which has been disqualified and removed from the TOAPL will be considered for reevaluation only after submission of a formal request along with acceptable evidence that the problems causing the disqualification have been solved.

Louisiana Department of Transportation and Development

**Traffic Operations Section** 

**Attn: Stephen McCarroll – TOAPL Coordinator** 

**7686 Tom Drive** 

Baton Rouge, LA 70806 Phone: (225) 935-0126 Fax: (225) 935-0173 Steve.mccarroll@la.gov